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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,451	03/12/2004	Russell John Beckett	413151USC4	5263
23294 7590 04/19/2007 JONES, TULLAR & COOPER, P.C. P.O. BOX 2266 EADS STATION ARLINGTON, VA 22202			EXAMINER RAE, CHARLESWORTH E	
			ART UNIT 1614	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 31 DAYS			MAIL DATE 04/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<p align="center"><b>Office Action Summary</b></p>	<p>Application No.</p> <p>10/798,451</p>	<p>Applicant(s)</p> <p>BECKETT, RUSSELL JOHN</p>	
	<p>Examiner</p> <p>Charlesworth Rae</p>	<p>Art Unit</p> <p>1614</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 38-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 38-69 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Status of the Claims**

Claims 38-69 are currently pending and are the subject of this Office action.

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 38-42, 55-61, and 66-69, drawn to a method of preventing or treating a selected disease, classified as class 424, subclass 686+. If this group is elected, then the below Summarized Species Election requirement is also required.
- II. Claims 43-46, 62, and 63, drawn to a method of decreasing or treating senescence or of increasing longevity in a mammal, classified as class 424, subclass 686+. If this group is elected, then the below Summarized Species Election requirement is also required.
- III. Claims 47-50, and 64-65, drawn to a method of increasing motor activity or decreasing fatigue in a mammal, classified as class 424, subclass 686+. If this group is elected, then the below Summarized Species Election requirement is also required.
- IV. Claims 51-54, drawn to a method of scavenging protons in a mammal, classified as class 424, subclass 686+. If this group is elected, then the below Summarized Species Election requirement is also required.

Inventions I-IV are related as processes of using the same product. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed are distinct as the inventions can have a materially different treatment effect: invention I is directed towards preventing or treating specific disease; invention II is directed towards decreasing or treating senescence or of increasing longevity; invention III is directed towards increasing motor activity or decreasing fatigue; while invention IV is directed towards scavenging protons. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Because inventions I-IV are distinct for the reasons given above, coupled with the fact that a search is required for each group, restriction for examination purposes is proper. While inventions I-IV can be identically classified under U.S. Patent Classification guidelines, to search them together would present an undue search burden on the Examiner due to the extensive databases of patent and non-patent literature that would have to be searched in view of the divergent subject matter encompassed by these different groups. Thus, Groups I-IV have been appropriately restricted on the basis of being both independent or distinct and presenting a search burden on the Examiner if they were to be searched together.

***Election of Species regarding Groups I-IV***

This application contains claims directed to more than one species of the generic inventions that would require an unduly extensive and burdensome search by the examiner if all the claimed species were examined together.

The generic inventions encompass multiple species of aqueous alkaline earth bicarbonate compositions. The treatment effect to be achieved in practicing the instant methods would reasonably vary depending on the specific earth alkaline cation, concentration of the cation, the concentration of the bicarbonate ions, and the stabilising agent present in a given aqueous earth bicarbonate composition. In view of the burden that would be created if all of these species were examined together, applicant is required to elect for examination purposes the following:

i) a single specific aqueous alkaline earth bicarbonate solution composition, wherein:

a) the concentration of the **specific alkaline earth cation** is specifically specified e.g. 30 mg of magnesium per liter of solution,

b) the concentration of the **bicarbonate anion** is specifically specified e.g. 150 mg per litre of solution,

c) the **stabilizing agent** is specifically specified e.g. carbonic acid,

d) the **specific pH** of the solution is specifically specified e.g. pH 7.5 to

8.8.

***Additional Election of Species regarding Groups I-IV***

The generic inventions encompass multiple pathological and non-pathological conditions. The treatment effect to be achieved in practicing the instant methods would reasonably vary depending on the specific targeted pathological or non pathological condition.

For example, inventions I-IV encompass multiple inflammatory diseases, degenerative diseases and viral diseases, which are associated with different clinical, etiologic, and pathological, and clinical characteristics. Further, different species of inflammatory diseases, degenerative diseases, and viral diseases have acquired different status in the art. Also, inventions II-IV, encompass non-pathological conditions. Specifically, the contemplated effect to be achieved in practicing the instant inventions with respect to senescence, longevity, motor activity, fatigue, and proton scavenging may reasonable be achieved in healthy and diseased mammals. Thus, an undue search burden would be created if all of these different species were examined together.

Applicant is therefore required to elect a single specific disease for examination purposes as indicated below:

a) If applicant elects invention I, then applicant is required to elect a single specific disease for examination purposes e.g. arthritis.

b) If applicant elects inventions II-IV, then applicant is required to elect either

i) a single specific disease for examination purposes as indicated in above "item a" e.g. arthritis, or

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ii) elect a non-pathological condition.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 38, and 40-69 are considered generic to the above listed species.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlesworth Rae whose telephone number is 571-272-6029. The examiner can normally be reached between 9 a.m. to 5:30 p.m. Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, can be reached at 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

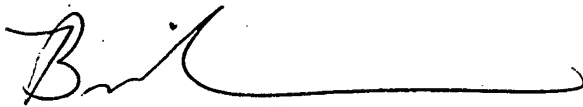
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6 April 2007  
CER

BRIAN-YONG S. KWON  
BRIAN-YONG S. KWON  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'B. Kwon', followed by a long horizontal flourish.